

REMARKS

In response to the Official Action, applicant has amended the claims to cancel references to hydrogen peroxide and percarbonate.

Applicant submits the attached Declaration in support of applicant's position that the claims as amended are not anticipated nor obvious in view of the prior art and are in compliance with 35 USC section 112. As note in the Declaration the Examiner recognizes that the inventor disclosed and claimed a product, not only for substantially eliminating existing odors, but also for substantially preventing the production of new odors in matter. He does this by combining nitrate with a salt, represented as MO; where M = zinc, iron, calcium, magnesium, sodium or potassium and O = oxide, hydroxide, carbonate, bicarbonate or silicate. See Application page 4, lines 2, 3 and 4.

The prior art cited by the Examiner discloses the use of hydrogen peroxide and nitrate to destroy existing odors; but fails to recognize that the use of peroxide is not effective for long term odor control.

The inventor recognized this weakness in using peroxide as noted in the application. "The peroxides and percarbonates are preferred, by lack long term stability..." Application page 6, line14. "Hydrogen peroxide is favored where immediate odor removal is desired and long term stability is not critical." Application page 9, lines 8 and 9.

In this regard, note that peroxide and per carbonate (which is a peroxide) are capable of oxidizing organic materials.

The MO salts listed above are not capable of oxidizing organic materials. These salts are stable and capable of removing newly introduced foul odors over extended periods of time. In contrast, peroxides rapidly decompose upon application and thus do not remove foul odors that are introduced long after their application.

When the above listed MO salts are combined with nitrates, the nitrates prevent the MO salts from being exhausted by limiting the rate of odor generation from the waste material. In addition, these MO salts remove newly introduced odors; which hydrogen peroxide alone will not remove.

The cited references to Hamaguchi et al and Miyamoto et al both require hydrogen peroxide. The present invention does not require it.

Furthermore, the use by the inventor of the word "oxide" in combination with a metal,

does not encompass "peroxide"; notwithstanding any misplaced generic usage he may have referenced in the application. To a chemist, a metal oxide would not include a peroxide.

The cited references to Sine ('766), Frismark et al ('010) and Stone ('269) lack any reference to the use of "nitrate" for odor control or for limiting the production of foul odors.

Thus there is nothing in these references to show or suggest that they should be combined for substantially preventing the production of new odors in matter for extended periods of time.

Once those of ordinary skill in this art read the application, they will have been taught that the combination of plain oxides with nitrates will substantially prevent the production of new odors in matter.

Furthermore, educated by this information, it would not take undo experimentation by one of ordinary skill in the art to come up with the right proportions to cure a given problem. For example, one faced with the problem of the stench from partially digested municipal sewage, might simply mix one gram of calcium carbonate and one gram of calcium nitrate with 100 grams of sewage. The foul odor would disappear right away and the sewage would remain odorless for several days.

Unlike some chemical applications, this application does not have a narrow sweet range of effectiveness. Even if a larger amount of salts was used, the result would have been the same.

The removal of odor is instantaneous; so that the salt need only be applied until the odor is gone. That does not require undo experimentation. People can detect foul odors with nothing more than their nose. Additional instrumentation is not required to determine if something, such as sewage, stinks.

As to the later generation of odors, the amount of nitrate can easily be determined by the length of odor control desired. For example, if one pound of nitrate controls the odor for one day and then the odor returns, one can easily surmise that two pounds will control the odor for two days.

The MO salt/nitrate mixture solves the problem of removing spikes of foul order that typically occur in municipal water treatment plants, since nitrates do not respond quickly enough. The MO salts do not have to be applied repeatedly to be effective; unlike peroxides, which lose effectiveness in minutes or at most a few hours.

Portland cement is known in the art as "a cement consisting predominantly of calcium silicates which reacts with water to form a hard mass." It is defined in the dictionary as "a

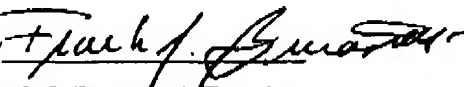
hydraulic cement made by finely pulverizing the clinker produced by calcining to incipient fusion a mixture of argillaceous and calcareous materials. Webster's New Collegiate Dictionary.

Accordingly, the Examiner's rejections under 35 USC sections 112, 102 and 103 are respectfully traversed.

Reconsideration of the application as amended is respectfully requested.

Respectfully submitted,

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